Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. **(Original)** A method of forming a surface modified medical device, the method comprising:

providing a medical device comprising a copolymer prepared by polymerizing a monomer mixture comprising,

(A) 20 to 80 weight % of at least one prepolymer selected from the group consisting of compounds having the following formula:

$YCO\text{-}CH{=}CHCOW(R_1)_n(SiR_2R_3O)_m(SiR_2R_3)(R_1)_nWOCCH{=}CH\text{-}COY$

and

$CH_2{=}C(CH_2COY)COW(R_1)_n(SiR_2R_3O)_m(SiR_2R_3)(R_1)_nWOC(CH_2COY)C{=}CH_2$

wherein R_1 is selected from the group consisting of alkylenes and alkylenes containing ether linkages, R_2 and R_3 are independently selected from the group consisting of alkyl groups, phenyl groups, alkyl groups substituted with halogen, phenyl groups substituted with halogen, alkyl groups containing ether linkages and phenyl groups containing ether linkages, W is O or NH, n is an integer between 1 and 10, m is an integer between 2 and 200, and Y is a residue having a reactive functional group selected from the group consisting of hydroxyl, carboxyl, oxazolone, epoxy and anhydride functional groups, and

(B) 5 to 50 weight % of at least one copolymerizable device-forming monomer,

contacting a surface of the device with a solution containing a surface modifying agent having functionality complementary to the functionalized silicone-containing copolymer; and

subjecting the device surface and surface modifying agent to reaction conditions suitable for forming a covalent bond between the functionalized silicone-containing copolymer and the surface modifying agent having functionality complementary to the functionalized silicone-containing copolymer while the surface modifying agent is in contact with the device surface to form a surface modified medical device.

2. **(Original)** The method of claim 1 wherein R_1 contains 1 to 10 carbon atoms.

3. **(Original)** The method of claim 1 wherein the copolymer prepared by polymerizing a monomer mixture further comprises,

10 to 50 weight % of at least one additional silicone-containing monomer and 10 to 50 weight % of at least one copolymerizable device-forming hydrophilic monomer.

4. **(Original)** The method of claim 1 wherein,

component (A) has the following formula:

$YCO\text{-}CH{=}CHCOW(R_1)_n(SiR_2R_3O)_m(SiR_2R_3)(R_1)_nWOCCH{=}CH\text{-}COY$

wherein R_1 is selected from the group consisting of alkylenes and alkylenes containing ether linkages, R_2 and R_3 are methyl, n is 4, m is an integer between 5 and 200, W is O, and Y is OH and is in a *trans* configuration.

5. **(Original)** The method of claim 1 wherein,

component (A) has the following formula:

$CH_2{=}C(CH_2COY)COW(R_1)_n(SiR_2R_3O)_m(SiR_2R_3)(R_1)_nWOC(CH_2COY)C{=}CH_2$

wherein R_1 is selected from the group consisting of alkylenes and alkylenes containing ether linkages, R_2 and R_3 are methyl, n is 4, m is an integer between 5 and 200, W is O, and Y is OH.

6. **(Original)** The method of claim 1 wherein,

component (A) has the following formula:

$YCO\text{-}CH{=}CHCOW(R_1)_n(SiR_2R_3O)_m(SiR_2R_3)(R_1)_nWOCCH{=}CH\text{-}COY$

wherein R_1 is selected from the group consisting of alkylenes and alkylenes containing ether linkages, R_2 and R_3 are methyl, n is 4, m is an integer between 5 and 200, W is O, and Y is OH and is in a *cis* configuration.

7. **(Original)** The method of claim 1 wherein the medical device formed is selected from the group consisting of heart valves, intraocular lenses, contact lenses, intrauterine devices, vessel substitutes, artificial ureters and artificial breast tissue.

8. **(Original)** The method of claim 7 wherein the medical device formed is a contact lens.

9. **(Original)** The method of claim 8 wherein the medical device formed is a soft contact lens.

10. **(Original)** The method of claim 3 wherein,

component (A) has the following formula:

$YCO\text{-}CH{=}CHCOW(R_1)_n(SiR_2R_3O)_m(SiR_2R_3)(R_1)_nWOCCH{=}CH\text{-}COY$

wherein R_1 is selected from the group consisting of alkylenes and alkylenes containing ether linkages, R_2 and R_3 are methyl, n is 4, m is an integer between 5 and 200, W is O and Y is OH and is in a *trans* configuration.

11. **(Original)** The method of claim 3 wherein,

component (A) has the following formula:

$CH_2{=}C(CH_2COY)COW(R_1)_n(SiR_2R_3O)_m(SiR_2R_3)(R_1)_nWOC(CH_2COY)C{=}CH_2$

wherein R_1 is selected from the group consisting of alkylenes and alkylenes containing ether linkages, R_2 and R_3 are methyl, n is 4, m is an integer between 5 and 200, W is O and Y is OH.

12. **(Original)** The method of claim 3 wherein,

component (A) has the following formula:

$YCO\text{-}CH{=}CHCOW(R_1)_n(SiR_2R_3O)_m(SiR_2R_3)(R_1)_nWOCCH{=}CH\text{-}COY$

wherein R_1 is selected from the group consisting of alkylenes and alkylenes containing ether linkages, R_2 and R_3 are methyl, n is 4, m is an integer between 5 and 200, W is O, and Y is OH and is in a *cis* configuration.

13. **(Original)** The method of claim 3 wherein the medical device formed is selected from the group consisting of heart valves, intraocular lenses, contact lenses, intrauterine devices, vessel substitutes, artificial ureters and artificial breast tissue.

14. **(Original)** The method of claim 13 wherein the medical device formed is a contact lens.

15. **(Original)** The method of claim 14 wherein the medical device formed is a soft contact lens.

16. **(Currently Amended)** A surface modified medical device comprising:

a medical device manufactured from a monomer mixture containing ~~a reactive functionalized fumaric- or itaconic-containing polymeric material;~~ 20 to 80 weight % of at least one prepolymer selected from the group consisting of compounds having the following formula:

$$YCO\text{-}CH{=}CHCOW(R_1)_n(SiR_2R_3O)_m(SiR_2R_3)(R_1)_nWOCCH{=}CH\text{-}COY$$

and

$$CH_2{=}C(CH_2COY)COW(R_1)_n(SiR_2R_3O)_m(SiR_2R_3)(R_1)_nWOC(CH_2COY)C{=}CH_2$$

wherein R_1 is selected from the group consisting of alkylenes and alkylenes containing ether linkages, R_2 and R_3 are independently selected from the group consisting of alkyl groups, phenyl groups, alkyl groups substituted with halogen, phenyl groups substituted with halogen, alkyl groups containing ether linkages and phenyl groups containing ether linkages, W is O or NH, n is an integer between 1 and 10, m is an integer between 2 and 200, and Y is a residue having a reactive functional group selected from the group consisting of hydroxyl, carboxyl, oxazolone, epoxy and anhydride functional groups; and

one or more reactive, hydrophilic polymers applied to the surface of said medical device;

whereby a chemical reaction between said reactive functionalized fumaric- or itaconic-containing polymeric material and said one or more reactive, hydrophilic polymers forms covalent bonds therebetween.

17. **(Original)** The surface modified medical device of claim 16 wherein said medical device is a contact lens.

18. **(Currently Amended)** The surface modified medical device of claim 17 wherein said one or more reactive, hydrophilic polymers are produced from hydrophilic monomers selected from the group consisting of aprotic ~~types~~ hydrophilic monomers and protic ~~types~~ hydrophilic monomers.

19. **(Original)** The surface modified medical device of claim 17 wherein said one or more reactive, hydrophilic polymers are produced from hydrophilic monomers selected from the group consisting of N,N-dimethylacrylamide, N,N-dimethylmethacrylamide, N-methylmethacrylamide and N-methylacrylamide.

20. **(Original)** The surface modified medical device of claim 17 wherein said one or more reactive, hydrophilic polymers are produced from hydrophilic monomers having reactive chemical functionality selected from the group consisting of epoxide functionality, carboxylic acid functionality, anhydride functionality, oxazolinone, lactam, lactone functionality and alcohol functionality.

21. **(Currently Amended)** The surface modified medical device of claim 17 wherein said one or more reactive, hydrophilic polymers is poly(~~DMA-co-GMA~~dimethylacrylamide-co-glycidylmethylacrylamide).